



Research Tools	Reviews	Journal Collection	News & Comment	Books & Labware	Science Jobs	Web Links	
research.bmn.com	Latest Updates	MEDLINE	Swiss Prot	Technical Tips	Structures Database	Mouse Knockout	Section Search

My BMN Exit
Feedback Help

MEDLINE

Search
Browse by Journal
Browse MESH
Preferences
About MEDLINE

Quick Site Search

GO
BioMedNet
[Advanced site search](#)

Medline

[Simple](#) | [Advanced](#) | [Citation](#) | [History](#) | [Results](#) | [Record](#)

Inhibition of vascular endothelial cell growth factor activity by an endogenously encoded soluble receptor.

Kendall RL, Thomas KA

Proc Natl Acad Sci U S A 1993 Nov 90:10705-9

BROWSE : [Proc Natl Acad Sci U S A](#) • [Volume 90](#) • [Issue 22](#)

VIEW : [MEDLINE](#), [full MEDLINE](#), [related records](#)

Abstract

Vascular endothelial cell growth factor, a mitogen selective for vascular endothelial cells in vitro that promotes angiogenesis in vivo, functions through distinct membrane-spanning tyrosine kinase receptors. The cDNA encoding a soluble truncated form of one such receptor, fms-like tyrosine kinase receptor, has been cloned from a human vascular endothelial cell library. The mRNA coding region distinctive to this cDNA has been confirmed to be present in vascular endothelial cells. Soluble fms-like tyrosine kinase receptor mRNA, generated by alternative splicing of the same pre-mRNA used to produce the full-length membrane-spanning receptor, encodes the six N-terminal immunoglobulin-like extracellular ligand-binding domains but does not encode the last such domain, transmembrane-spanning region, and intracellular tyrosine kinase domains. The recombinant soluble human receptor binds vascular endothelial cell growth factor with high affinity and inhibits its mitogenic activity for vascular endothelial cells; thus this soluble receptor could act as an efficient specific antagonist of vascular endothelial cell growth factor in vivo.

MeSH

[Alternative Splicing](#); [Base Sequence](#); [Cloning, Molecular](#); [Cross-Linking Reagents](#); [DNA Primers](#); [DNA, Complementary](#); [Endothelial Growth Factors](#); [Endothelium, Vascular](#); [Gene Expression](#); [Human](#); [In Vitro](#); [Kinetics](#); [Lymphokines](#); [Mitogens](#); [Molecular Sequence Data](#); [Polymerase Chain Reaction](#); [RNA, Messenger](#); [Receptor Protein-Tyrosine Kinases](#); [Receptors, Growth Factor](#); [Solubility](#)

Author Address

Department of Biochemistry, Merck Research Laboratories, Rahway, NJ 07065.

Order Document